Attorney Docket No.: SAM-0535

WHAT IS CLAIMED IS:

5

10

15

20

25

A socket assembly for an integrated circuit test,
comprising:

a guide block provided in a terminal region of a test board, said guide block defining an area into which an integrated circuit can be inserted opposite terminals formed on the test board in the terminal region;

a guide part provided on an inner side wall of the guide block, to guide an insertion position of the integrated circuit so that respective leads of the integrated circuit are aligned with the corresponding terminals of the test board; and

a pressurizing plate adapted to interface with the guide block, the pressurizing plate including a pressurizing protrusion on a surface thereof, such that when the pressurizing plate is applied to the guide block, the respective leads of the integrated circuit are urged to connect with the corresponding terminals of the test board.

2. The assembly as claimed in claim 1, wherein the guide block is shaped to include an insertion hole, through which the terminal region of the test board is exposed and in which the integrated circuit can be inserted; and wherein the guide part is provided on an inner wall of the insertion hole, and is configured as a vertical flute or protrusion to mate with a

mating protrusion or flute on a side portion of the integrated circuit so as to guide the horizontal position of the integrated circuit during vertical insertion.

3. The assembly as claimed in claim 1, wherein the guide block comprises at least two independent separated sidewalls positioned in the terminal region of the test board, and wherein the guide part is configured at the sidewall of the guide block as a vertical flute or protrusion to mate with a mating protrusion or flute on a side portion of the integrated circuit so as to guide the horizontal position of the integrated circuit during vertical insertion.

5

10

15

- 4. The assembly as claimed in claim 1, wherein the guide block further comprises an elevating part, said elevating part being adapted to support and elastically elevate an inserted integrated circuit.
- 5. The assembly as claimed in claim 4, wherein the elevating part further comprises:
 - a vertical support flute, said support flute being formed on an inner wall of the guide block, wherein said elevating part comprises a support member inserted into the support flute to be vertically raised and lowered so that an end part of the support member projecting from the guide block supports an inserted

integrated circuit; and

a resilient member communicating with the support member, for elastically elevating the support member.

6. The assembly as claimed in claim 1, wherein the pressurizing plate further comprises an aligning part, said aligning part being formed between the pressurizing protrusion and being for mating with an alignment feature of the integrated circuit.

10

5

7. The assembly as claimed in claim 1, wherein the pressurizing plate further comprises an elastic member for elastically pressurizing the leads of the integrated circuit through the pressurizing protrusion.

15

20

- 8. A socket assembly for an integrated circuit test, comprising:
- a main body provided on a test board to expose a terminal region, the terminal region having terminals formed thereon;
- a guide block provided in the main body defining an area into which an integrated circuit can be inserted opposite the terminals of the terminal region;
- a guide part provided on an inner side wall of the guide block, to guide an insertion position of the integrated circuit so that respective leads of the integrated circuit are aligned

with the corresponding terminals of the test board; and

5

10

15

20

25

a first pressurizing plate adapted to interface with at least one of the main body and an upper part of the guide block, the first pressurizing plate including a pressurizing protrusion on a surface thereof, such that when the pressurizing plate is applied to the at least one of the main body and the guide block, the respective leads of the integrated circuit are urged to connect with the corresponding terminals of the test board.

9. The assembly as claimed in claim 8, further comprising:

a needle block adapted to replace the guide block configured to cover the terminal region, said needle block supporting the integrated circuit and elastically connecting the respective leads of the integrated circuit and the corresponding terminals of the test board, the needle block including a plurality of needles, the upper and lower ends of which pierce upper and lower surfaces of the needle block to connect the integrated circuit leads and the terminals of the test board; and

a second pressurizing plate adapted to replace the first pressurizing plate, the second pressurizing plate including a pressurizing protrusion on a surface thereof, such that when the second pressurizing plate is applied to the needle block, the respective leads of the integrated circuit are urged to connect with the underlying needle upper ends.

10. The assembly as claimed in claim 8, wherein the guide block further comprises an elevating part, said elevating part being adapted to support and elastically elevate an inserted integrated circuit.

5

11. The assembly as claimed in claim 8, wherein the guide block is shaped to include an insertion hole, through which the terminal region of the test board is exposed and in which the integrated circuit can be inserted; and wherein the guide part is provided on an inner wall of the insertion hole, and is configured as a vertical flute or protrusion to mate with a mating protrusion or flute on a side portion of the integrated circuit so as to guide the horizontal position of the integrated circuit during vertical insertion.

15

10

12. The assembly as claimed in claim 8, wherein the guide block comprises at least two independent separated sidewalls positioned in the terminal region of the test board, and wherein the guide part is configured at the sidewall of the guide block as a vertical flute or protrusion to mate with a mating protrusion or flute on a side portion of the integrated circuit so as to guide the horizontal position of the integrated circuit during vertical insertion.

25

13. An integrated circuit, in a socket assembly, which includes a guide block provided in a terminal region of a test board, the guide block defining an area into which an integrated circuit body having a plurality of leads can be inserted; a guide part provided on an inner side wall of the guide block having a vertical flute or protrusion, to guide an insertion position of the integrated circuit body so that the respective leads are each aligned with corresponding terminals of the test board; and a pressurizing plate including a pressurizing protrusion on a surface thereof, such that when pressurizing force is applied to the guide block, the respective leads of the integrated circuit are urged to connect with the corresponding terminals of the test board, said integrated circuit comprising:

5

10

15

20

25

a guide member in the shape of a vertical protrusion or flute adapted to mate with the vertical flute or protrusion of the guide block, for aligning the integrated circuit relative to the guide block.

14. The circuit as claimed in claim 13, wherein the socket assembly further comprises an elevating part on the guide block, said elevating part including a vertical support flute; a support member inserted into the support flute to be vertically raised and lowered so that an end part of the support member projecting from the guide block supports an inserted integrated circuit; and a resilient member communicating with the support

member, for elastically elevating the support member; and

further comprising a support flute formed on a surface of the integrated circuit to be supported by the end part of the support member.

5

10

15

- 15. The circuit as claimed in claim 14, wherein the pressurizing plate further comprises an aligning part, said aligning part being formed between the pressurizing protrusion and being for mating with an alignment feature of the integrated circuit.
- 16. An integrated circuit tester, in a socket assembly, which includes a guide block provided in a terminal region of a test board, the guide block defining an area into which an integrated circuit body having a plurality of leads can be inserted; a guide part provided on an inner side wall of the guide block having a vertical flute or protrusion, to guide an insertion position of the integrated circuit body so that the respective leads are each aligned with corresponding terminals of the test board; and a pressurizing plate including a pressurizing protrusion on a surface thereof, such that when pressurizing force is applied to the guide block, the respective leads of the integrated circuit are urged to connect with the corresponding terminals of the test board, said integrated circuit tester comprising:

a guide member in the shape of a vertical protrusion or flute adapted to mate with the vertical flute or protrusion of the guide block, for aligning the integrated circuit relative to the guide block.